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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/574,308

04/03/2006

Soon-Suck Jang

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26530 7590 09/18/2008

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EXAMINER

LE, HUYEN D

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

09/18/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/574,308	<b>Applicant(s)</b> JANG, SOON-SUCK	
	<b>Examiner</b> HUYEN D. LE	<b>Art Unit</b> 2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 June 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/15/06</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Specification***

1. The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

### ***Claim Rejections - 35 USC § 112***

2. Claim 4 recites the limitation "the amplifier chip" in line 3. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hickox (U.S. patent 3,598,928).

Regarding claim 1, Hickox teaches a hearing aid comprising a printed circuit board (13) in which components of the hearing aid automatically are disposed and soldered (col. 3, lines 2-3 and lines 35-42), a faceplate (12), and a battery (col. 3, lines 11-19). As shown in figure 2, the printed circuit board (13) is connected with the internal surface of the hearing aid faceplate (12).

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Hickox does not specifically disclose the battery electrode terminals as claimed. However, it would have been obvious to one skilled in the art to provide the battery electrode terminals which are connected to the positive and negative electrodes at the sides of a battery chamber disposed at the faceplate (12) of Hickox for better providing the power connections in the hearing aid device.

Regarding claim 2, Hickox teaches a receiver (15, 16, 17) being soldered onto the printed circuit board (13) and a microphone (29) being mounted on the printed circuit board. Hickox does not specifically disclose an amplifier, a front microphone and a rear microphone are soldered onto the circuit board. However, Hickox does teach that the transducers and most of the circuit components associated with the conductors are mounted on the board (col. 3, lines 35-42).

Therefore, it would have been obvious to one skilled in the art to provide any hearing aid components such as the amplifier, the front microphone and the rear microphone which are mounted and soldered onto the circuit board (13) of Hickox for an easy assembly and fixing.

Further, Hickox does not specifically show the elongate electric wire as claimed. However, providing an elongate electric wire for the hearing aid component on the circuit board is known in the art. Therefore, it would have been obvious to one skilled in the art to provide the microphones, the receiver and the amplifier which are soldered and connected onto the circuit board (13) by the elongate electric wires for providing better electrical connections for the hearing aid components

Regarding claims 3-4, Hickox teaches a receiver (15, 16, 17) being soldered onto the printed circuit board (13) and a microphone (29) being mounted on the printed circuit board. Hickox does not specifically disclose a memory diverting switch, the battery electrode terminals

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and interface socket terminals are soldered onto the circuit board as claimed. However, Hickox does teach that the transducers and most of the circuit components associated with the conductors are mounted on the board (col. 3, lines 35-42).

Therefore, it would have been obvious to one skilled in the art to provide any hearing aid components such as the memory diverting switch, the battery electrode terminals, the socket terminals for the interface with an external controller which are mounted and soldered onto the circuit board (13) of Hickox for easily assembly and fixing.

Further, Hickox does not specifically show the electric wires as claimed. However, providing the electric wires for the hearing aid components on the circuit board is known in the art. Therefore, it would have been obvious to one skilled in the art to provide the socket terminals which are soldered and connected onto the circuit board (13) by the short electric wires for providing better electrical connections for the hearing aid components

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shennib (U.S. patent 6,940,988) teaches a hearing device comprising a flexible film with circuit wires which electrically interconnect the microphone, receiver, battery and other components in the hearing aid.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (571) 272-7502. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SUHAN NI can be reached on (571) 272-7505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUYEN D. LE/  
Primary Examiner, Art Unit 2615

HL  
September 12, 2008